In the Matter of ET Docket No. 03-104 and ET Docket No 04-37:

Commissioners:

As an electrical engineer with 24 years of land mobile radio product and system design experience, I would like to register my serious concerns about the effects of RF pollution that will result if Access BPL is implemented on a wide-spread basis. Evidence from failed trials in Japan, Austria, and the UK indicates that the Commission should proceed with extreme caution in the matter of BPL. Although these Dockets do reflect the attempts of the Commission to protect licensed spectrum users, I am concerned that the measures will be difficult or impossible to enforce, leaving licensed users vulnerable to emissions from BPL implementations.

To ensure protection of licensed users, the Commission should consider the following actions as mandatory for BPL implementation.

1. Maintenance of a public database (as referenced in paragraph 31) that contains information about all BPL emitters, as well as contact information for the operators, must be mandatory. To date, industry representatives have maintained that "no interference has been reported" during trials. In several cases, the trials have been shrouded in secrecy, and the extent and trial schedule was not public knowledge. The lack of publicity regarding the trials made it difficult for those affected to report the problems. The database should be a comprehensive,

industry-wide database, rather than an operator-specific one so that those who have interference issues do not have to hunt through a number of different operator databases to find the one(s) that are active in their community.

2. Prior to commissioning of a new system, field strength measurements at periodic data points throughout the system should be performed in accordance with the accepted test procedures as discussed in the Dockets. These measurements should verify that radiated emissions are below Part 15 specifications. Measurement data should be retained and available for public scrutiny. As the system is built out, ongoing testing in new areas should be required to verify compliance to Part 15. I would ask the Commissioners to recall the early days of cable television, and some of the near-disasters that occurred as leaky cable systems radiated significant RF in the spectrum used for aviation communication.

3. Type acceptance should be required for Access BPL subscriber equipment, especially any coupling equipment that bridges the medium and high potential lines into the subscriber premise. As referenced in paragraph 38, these lines have potentials of 1000 to 40,000 Volts, and a catastrophic failure of the BPL device due to inadequate design could result in injury or death of the BPL user.

4. All BPL subscriber units should be capable of remote shutdown in the event that they cause interference as referenced in paragraph 42. This capability should be mandatory.

5. All BPL suppliers should be required to implement frequency-agile notching technology with sufficient guard bands so that BPL operators will be able to respond to the inevitable harmful interference reports that will occur when this technology is widely adopted.

6. Although it is already discussed elsewhere, the definition of harmful interference should be re-stated in this NPRM so that it is explicit and clear to all parties. In addition, the steps for resolution of interference issues, as well as the schedule of penalties to be incurred by BPL operators in the event that they fail to resolve interference issues in a timely manner should be highlighted.

In the matter of measurement techniques, in-situ emission measurements should be required prior to deployment as discussed above. With respect to the questions posed in paragraph 46, it should be mandatory that measurements be performed with test antennas at the height of overhead power lines.

Respectfully submitted,

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